obtaining information on a financial plan including a time horizon of a plural number of

investment periods from the time of an initial investment through times of withdrawals

for meeting goals, amounts to be invested in a plurality of the periods, at least a first

withdrawal amount to be withdrawn for a goal in a period before the end of the time

horizon, and an amount of a final wealth goal at the end of the time horizon; and

information on a plurality of investment categories including expected return rates,

return-rate standard deviations, and correlation coefficients for the individual

investment period;

identifying a series of investment portfolio plans from more conservative to more

aggressive, comprising portfolios each with a different expected return rate and a

return-rate standard deviation for the individual period, each portfolio comprising a mix

of investment categories diversified to offer its expected return rate with smallest or

nearly smallest return-rate standard deviation;

developing for each portfolio plan, through simulation, a probability distribution for the final

wealth for the financial plan with that portfolio plan, each simulation proceeding period

by period through the time horizon, each period adding any amounts to be invested in

that period, subtracting any amounts to be withdrawn in that period, and applying for

each portfolio a return rate determined for that period based on the portfolio's expected

return rate and return-rate standard deviation, the simulations and probability

distributions providing a basis for comparing the portfolio plans in various aspects of

prospects for the financial plan and goals including probability that the final wealth

result will be at least as great as the final wealth goal, probabilities for how far above

the goal the final wealth result may be, probabilities for how far below the goal the final

wealth result may be, and prospects for period-by-period path of value variation and

development through the time horizon; and

providing at least a first comparison of the portfolio plans in a first criterion, that criterion

being probability that the final wealth will meet or exceed the goal, revealing which of

the portfolio plans are best and close to best with respect to the first criterion, to inform

the investor for selecting portfolio plans for comparison in other aspects of prospects for the plan and goals, selection of a portfolio plan the investor judges optimal for his plan, goals, and priorities, and the investor's informed commitment to the choice.

2. A method, as claimed in claim 1, wherein:

said investment period is the year.

3. A method, as claimed in claim 1, wherein:

at least one of said investment categories is an asset class.

4. A method, as claimed in claim 1, wherein:

at least one of said investment categories is a mutual fund or other investment vehicle.

5. (Amended) A method, as claimed in claim 1, wherein:

said [obtaining] identifying step includes displaying identifications of a number of investment categories from which the user may choose [said] a plurality of investment categories.

6. (Amended) A method, as claimed in claim 5, wherein:

said displaying step includes displaying [said] data on return rates of said investment categories.

7. A method, as claimed in claim 6, wherein:

said displaying step includes enabling revision or replacement by the user of at least one of said identifications or said data on return rates.

Please cancel Claim 8 without prejudice or disclaimer of the subject matter contained therein.

9. A method, as claimed in claim 1, wherein:

said financial plan includes a plurality of investment amounts or portions of investment amounts subject to different rules of taxation.

Please cancel Claim 10 without prejudice or disclaimer of the subject matter contained therein.

11. A method, as claimed in claim 1, wherein:

said financial plan includes data to enable calculation of amounts and time periods of

deductions from a portfolio plan for fees and costs and for taxes including deductions

based on investment returns, withdrawals from a portfolio, and portfolio value.

12. A method, as claimed in claim 1, wherein:

said financial plan includes at least a first inflation rate to enable calculation of inflation

adjustments of future values.

13. A method, as claimed in claim 1, wherein:

said financial plan includes information defining as a probability distribution said number

of said investment periods in said time horizon, said first inflation rate, or any other item

of said information on said financial plan.

14. A method, as claimed in claim 1, wherein:

any investment amount, withdrawal amount, final wealth, or other measure of financial

value may be expressed either before or after adjustment for any of the following: any

fees and costs, any taxes, any inflation.

15. (Amended) A method, as claimed in claim 1, wherein:

said [providing] identifying step includes applying concepts of Modern Portfolio Theory

using [said] data on return rates of [said] a plurality of investment categories to obtain

information defining an efficient frontier curve on a graph, said curve comprising a range

of portfolio points [each] representing a number of [best-diversified] portfolios [in said

population] offering various expected return rates with smallest return-rate standard

deviations.

16. A method, as claimed in claim 15, wherein:

said applying step includes applying concepts and methods known collectively as CAPM

including investing or borrowing at a rate commonly termed a "risk-free" rate.

17. (Amended) A method, as claimed in claim 1, wherein:

said [population of] portfolios includes only portfolios having allocation proportions that conform to at least a first allocation constraint defining a minimum or maximum total allocation proportion for <u>each of</u> a number of said investment categories.

18. (Amended) A method, as claimed in claim 1, wherein:

said [population of] portfolios includes only portfolios in which the allocation proportions of said investment categories are integer multiples of an integer allocation percentage increment.

19. A method, as claimed in claim 18, wherein:

said portfolios are grouped and characterized with respect to expected return rate according to an incremental sequence of expected return rates.

20. A method, as claimed in claim 15, wherein:

said applying step includes displaying said efficient frontier curve on an efficient frontier graph with axes representing expected return rate and return rate standard deviation.

21. A method, as claimed in claim 20, wherein:

said displaying step includes showing on said efficient frontier graph a number of portfolio points each representing a user-specified portfolio.

22. A method, as claimed in claim 20, wherein:

said displaying step includes enabling user interaction with said graph including choosing at least a first portfolio point and showing information for said first portfolio point graphically and numerically, said information including an expected return rate, a return rate standard deviation, and allocation proportions of at least a first portfolio corresponding to said first portfolio point.

23. (Amended) A method, as claimed in claim 22, wherein:

said information includes allocation proportions for each of a plurality of portfolios [in said population] determined to best correspond to said first chosen portfolio point.

24. A method, as claimed in claim 22, wherein:

said information includes upper and lower limits at a specified confidence level for the highest and lowest return rate in the best and worst investment periods of said time horizon.

25. A method, as claimed in claim 1, wherein:

each of said portfolio plans comprises a plurality of component portfolio plans in which separate investment amounts or separate portions of investment amounts may be placed.

26. A method, as claimed in claim 25, wherein:

said component portfolio plans in a portfolio plan are subject to different rules of taxation.

27. A method, as claimed in claim 25, wherein:

said component portfolio plans in a portfolio plan comprise different portfolios.

28. A method, as claimed in claim 1, wherein:

at least one portfolio plan or component portfolio plan is rebalanced at the end of at least a first investment period, having at the start of the next investment period the same portfolio as at the start of said first investment period.

29. A method, as claimed in claim 1, wherein:

at least one portfolio plan or component portfolio plan is reallocated at least once during said time horizon, comprising one portfolio before said reallocation and another portfolio after said reallocation.

30. A method, as claimed in claim 1, wherein:

said series comprises portfolio plans that each have the same number of component portfolio plans and are all defined according to a common system of increments and limits regarding portfolios in the first investment period of said time horizon and times and methods of rebalancing and reallocation of portfolios in subsequent investment periods of said time horizon.

Please cancel Claim 31 without prejudice or disclaimer of the subject matter contained therein.

32. A method, as claimed in claim 1, wherein:

said first criterion is the highest value that said final wealth has a predetermined probability of equaling or exceeding.

Please cancel Claim 33 without prejudice or disclaimer of the subject matter contained therein.

34. (Amended) A method, as claimed in claim [33] 1, wherein:

said [producing step] simulation includes determining separately for each investment period of each simulation a return rate for at least a first portfolio of said portfolio plan for said investment period by random selection from a probability distribution for the return rate of said portfolio.

35. A method, as claimed in claim 34, wherein:

said probability distribution for a return rate is determined using an expected return rate and a return-rate standard deviation and assuming one of a number of shapes for said probability distribution.

36. A method, as claimed in claim 35, wherein:

said assuming step includes assuming that said shape of said probability distribution is normal or lognormal.

37. A method, as claimed in claim 34, wherein:

said determining step includes establishing said probability distribution for the return rate of at least one portfolio in at least one investment period using at least a first serial correlation coefficient reflecting an effect upon said probability distribution of at least one return rate in at least one previous investment period.

38. A method, as claimed in claim 34, wherein:

said determining step includes ascertaining for at least one investment period a return rate for at least a second portfolio in said portfolio plan in said investment period by random selection from a probability distribution for said return rate determined using a

return rate randomly selected for said first portfolio for said investment period and the covariance of the return rates of said first portfolio and said second portfolio.

39. (Amended) A method, as claimed in claim [33] 1, wherein:

said [producing step] simulation includes for each simulation determining a return rate for each portfolio in a portfolio plan in each investment period of said time horizon by random selection of a historical investment period using actual historical return rates of investment categories for the selected historical investment period.

40. (Amended) A method, as claimed in claim [33] 1, wherein:

said [producing step] simulation includes for each simulation using historical return rates of investment categories for a series of consecutive historical investment periods equal in number to the number of investment periods in said time horizon.

41. (Amended) A method, as claimed in claim [33] 1, wherein:

said [producing step] simulation includes determining values of a number of items in said financial plan by random selection from probability distributions of values of said items.

42. (Amended) A method, as claimed in claim [33] 1, wherein:

said [producing] developing step includes grouping final wealths produced by said simulations according to a scale of value increments to develop a final wealth frequency distribution, interpreting said final wealth frequency distribution as a final wealth probability distribution, and using said probability distribution to determine specifications of said probability distribution such as the expected final wealth or the median final wealth, the probability that the final wealth will equal or exceed a value, or the largest value that the final wealth has a probability of equaling or exceeding.

Please cancel Claim 43 without prejudice or disclaimer of the subject matter contained therein.

44. A method, as claimed in claim 1, wherein:

said providing step includes comparing in said first comparison a number of portfolio plans designated by the user.

45. A method, as claimed in claim 1, wherein:

said providing step includes displaying for each of said series of portfolio plans a plurality of the following: identifying name, symbol, or number; expected final wealth; median final wealth; probability that the final wealth will equal or exceed a predetermined amount; highest amount that the final wealth has a predetermined probability of equaling or exceeding; an expected return rate characteristic of the portfolio plan; a return-rate standard deviation characteristic of the portfolio plan; a lowest-return-rate characteristic of the portfolio plan for an individual investment period relative to a predetermined probability; and a lowest-return-rate characteristic of the portfolio plan for the investment period in which said characteristic is lowest of all investment periods in said time horizon relative to a predetermined probability.

46. A method, as claimed in claim 1, wherein:

said providing step includes presenting said first comparison graphically.

47. A method, as claimed in claim 46, wherein:

said presenting step includes displaying said first comparison in a graph with a first axis representing said first criterion, a second axis representing a second measure of said portfolio plan, and a portfolio plan point representing each portfolio plan in said series relative to said first axis and said second axis.

48. A method, as claimed in claim 47, wherein:

said second measure is one of the following: identifying name, symbol, or number; expected final wealth; median final wealth; probability that the final wealth will equal or exceed a predetermined amount; highest amount that the final wealth has a predetermined probability of equaling or exceeding; an expected return rate characteristic of the portfolio plan; a return-rate standard deviation characteristic of the portfolio plan; a lowest-return-rate characteristic of the portfolio plan for an individual investment period relative to a predetermined probability; and a lowest-return-rate characteristic of the portfolio plan for the investment period in which said characteristic is

lowest of all investment periods in said time horizon relative to a predetermined probability.

49. A method, as claimed in claim 47, wherein:

said displaying step includes choosing by the user of at least a first portfolio plan point represented on said graph.

50. A method, as claimed in claim 49, wherein:

said choosing step includes choosing by the user of a value along an axis of said graph from which value said first portfolio plan point is designated.

51. A method, as claimed in claim 49, wherein:

said choosing step includes displaying values associated with said first portfolio plan point relative to each axis of said graph.

52. A method, as claimed in claim 49, wherein:

said choosing step includes identifying at least a first portfolio plan designated to correspond to said first portfolio plan point.

53. A method, as claimed in claim 52, wherein:

said identifying step includes displaying allocation proportions of at least a first portfolio of said first portfolio plan.

54. A method, as claimed in claim 53, wherein:

said displaying step includes presenting additional information necessary to determine all allocation proportions of all portfolios in said first portfolio plan in each investment period of said time horizon.

55. A method, as claimed in claim 49, wherein:

said choosing step includes identifying each of a plurality of portfolio plans designated to correspond to said first portfolio plan point.

56. A method, as claimed in claim 49, wherein:

said choosing step includes selecting at least a first portfolio plan corresponding to a point on said graph.

57. A method, as claimed in claim 56, wherein:

said selecting step includes displaying a probability distribution graph showing a

probability distribution of the final wealth of said first portfolio plan.

58. A method, as claimed in claim 57, wherein:

said displaying step includes showing on said probability distribution graph a probability

distribution of the final wealth of a second portfolio plan.

59. A method, as claimed in claim 57, wherein:

said displaying step includes indicating by the user of a target value for the final wealth

of a portfolio plan.

60. A method, as claimed in claim 59, wherein:

said indicating step includes showing for each of a number of portfolio plans represented

on said probability distribution graph the probability that the final result will equal or

exceed said target value.

61. A method, as claimed in claim 56, wherein:

said selecting step includes displaying a simulations graph showing at least a first

simulation of the progression of portfolio value investment period by investment period

through the time horizon for said first portfolio plan.

62. A method, as claimed in claim 61, wherein:

said displaying step includes showing on said simulations graph a plurality of said

simulations.

63. A method, as claimed in claim 61, wherein:

said displaying step includes showing on said simulations graph a number of said

simulations for a second portfolio plan.

64. A method, as claimed in claim 56, wherein:

said selecting step includes displaying a sensitivity graph in which a first axis represents

a range of values for a first item of said financial plan, a second axis represents a range

of values for said first criterion, and values are represented for said first criterion of said

first portfolio plan for each of a plurality of values of said first item of said financial plan.

65. A method, as claimed in claim 64, wherein:

said first item of said financial plan is said time horizon.

66. A method, as claimed in claim 64, wherein:

said displaying step includes showing on said sensitivity graph values for said first

criterion of a second portfolio plan for each of a plurality of values of said first item of

said financial plan.

67. A method, as claimed in claim 64, wherein:

said displaying step includes showing on said sensitivity graph a plurality of curves each

representing a different value for a second item of said financial plan and showing

values of said first criterion of said first portfolio plan for each of a plurality of values of

said first item of said financial plan.

68. A method, as claimed in claim 64, wherein:

said displaying step includes choosing by the user of a value for each of a number of

items of said financial plan and displaying a corresponding value of said first criterion for

said first portfolio plan.

69. (Amended) A method, as claimed in claim 1, wherein:

said obtaining step includes providing a user interface on a screen of a computer or

other electronic device for user selectable display of said information including entry

boxes in which the user may make entries or changes in said information and buttons or

other interaction objects by which the user may make selections pertaining to said

information, said investment categories, said portfolios, and said portfolio plans.

70. A method, as claimed in claim 1, wherein:

said providing step includes providing a user interface on a screen of a computer or

other electronic device for user selectable display of a number of said comparisons,

graphs, and information on portfolio plans, including scrollbars, buttons, or other objects

through which the user may make selections and carry out other interactions relative to

said comparisons, graphs, and information.

71. (Amended – completely rewritten) An apparatus that relates to finding best investment

portfolio plans for long-term financial plans and goals, comprising:

computer memory for storing information on a financial plan including a time horizon of a

plural number of investment periods from the time of an initial investment through times

of withdrawals for meeting goals, amounts to be invested in a plurality of the periods,

at least a first withdrawal amount to be withdrawn for a goal in a period before the end

of the time horizon, and an amount of a final wealth goal at the end of the time horizon;

and information on a plurality of investment categories including expected return rates,

return-rate standard deviations, and correlation coefficients for the individual

investment period; and

at least a first computer processor for:

identifying a series of investment portfolio plans from more conservative to more

aggressive, comprising portfolios each with a different expected return rate and a

return-rate standard deviation for the individual period, each portfolio comprising a

mix of investment categories diversified to offer its expected return rate with

smallest or nearly smallest return-rate standard deviation;

developing for each portfolio plan, through simulation, a probability distribution for the

final wealth for the financial plan with that portfolio plan, each simulation

proceeding period by period through the time horizon, each period adding any

amounts to be invested in that period, subtracting any amounts to be withdrawn in

that period, and applying for each portfolio a return rate determined for that period

based on the portfolio's expected return rate and return-rate standard deviation,

the simulations and probability distributions providing a basis for comparing the

portfolio plans in various aspects of prospects for the financial plan and goals

including probability that the final wealth result will be at least as great as the final

wealth goal, probabilities for how far above the goal the final wealth result may be,

probabilities for how far below the goal the final wealth result may be, and

prospects for period-by-period path of value variation and development through

the time horizon; and

providing at least a first comparison of the portfolio plans in a first criterion, that criterion

being probability that the final wealth will meet or exceed the goal, revealing which of

the portfolio plans are best and close to best with respect to the first criterion, to inform

the investor for selecting portfolio plans for comparison in other aspects of prospects

for the plan and goals, selection of a portfolio plan the investor judges optimal for his

plan, goals, and priorities, and the investor's informed commitment to the choice.

72. An apparatus, as claimed in claim 71, further comprising:

an electronic display screen for displaying at least said first comparison including display

of said first comparison in a graph.

73. An apparatus, as claimed in claim 71, further comprising:

input devices for the user to enter, select, change, and otherwise determine said

information and information on portfolio plans and to interact with said comparisons

including selection of said information and comparisons to be displayed on an electronic

display screen.

74. An apparatus, as claimed in claim 71, further comprising:

communication devices for obtaining electronically said information from other

computers and for sending said information and comparisons to other computers.